

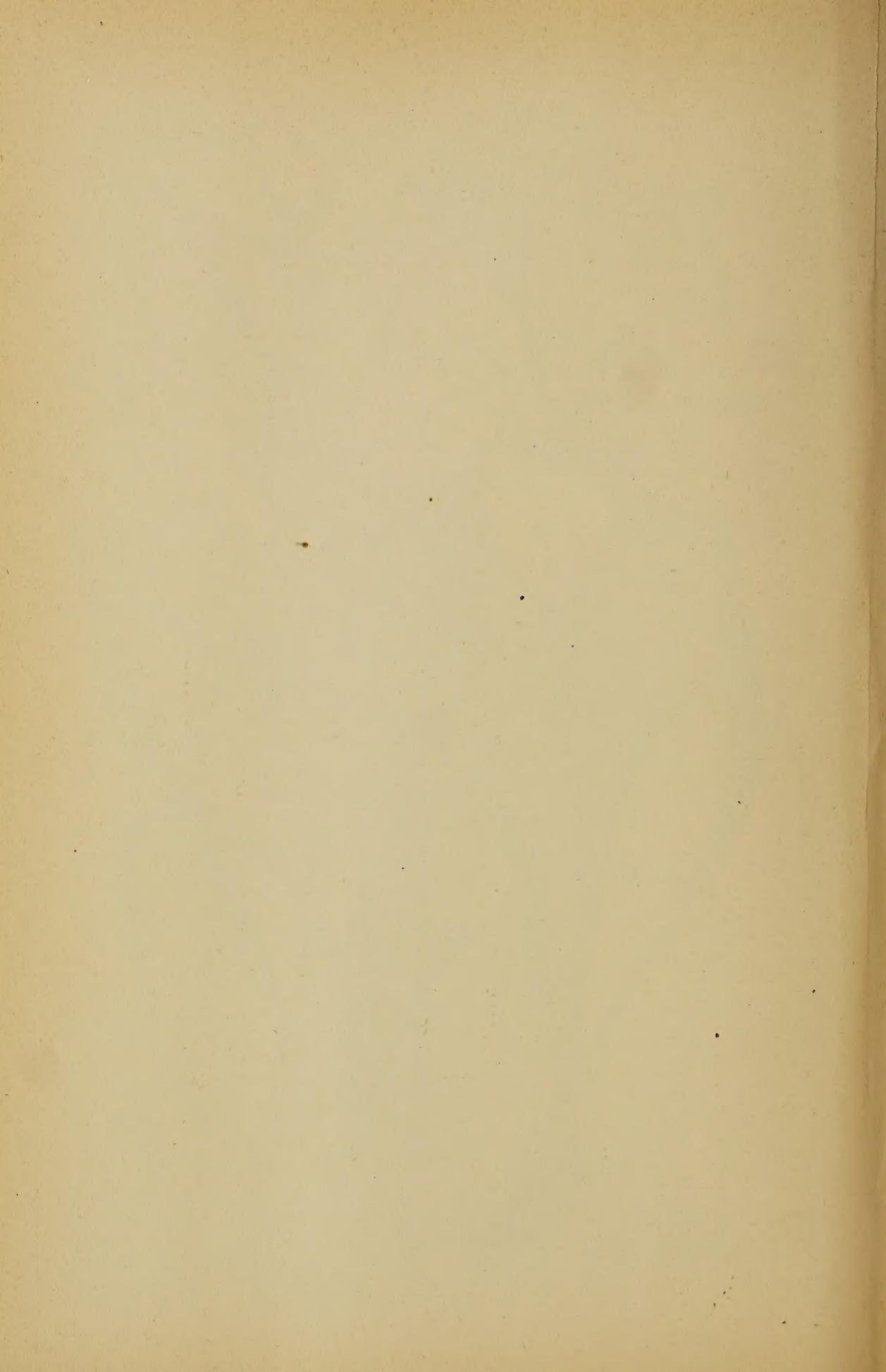
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AMARYLLIS ATAMASCO







JULY, 1886.

LABOR AND WATCHFULNESS in full measure will be demanded by the garden the present month. It will be yielding much to enjoy, but requiring, in return, care and attention. Weeds will still vigorously assert their living force, and if not promptly destroyed will "grow apace." Clean cultivation should be the watchword. It costs treble to destroy weeds that it does to prevent their growth by timely measures. Much of the enjoyment of a garden consists in keeping ahead with the work, and nothing is more annoying and unprofitable than to be in the drag.

Keep the walks clean and the lawn edges of the walks neatly trimmed; tie up as they may need it all quick-growing plants that require support.

Carpet beds will require attention, as the plants grow, to keep them in good shape, with the plants presenting an even and compact growth; this will consist in pinching off the ends of the shoots, causing them to branch more freely. The Scarlet and the Scented-leaved Geraniums, and Heliotropes, need this attention, but to a less extent this month than last; now, however, special attention of this kind is required by the Achyranthes and Coleus which otherwise shoot up tall and spindling. An even surface over the whole bed should be aimed at and no plants allowed to overgrow others.

The last stopping of Chrysanthemums should be given towards the last of the month, and the young shoots should be supported and tied out to expose all the foliage well to the light and air, thus ensuring its health and promoting the symmetry and beauty of the plants.

House plants that have been plunged in the border will need to be carefully watched and supplied with water, or, otherwise, in a dry time they will suffer far sooner than plants with their roots unconfined. As these make their growth they will also need some care in pinching and training with reference to their future forms.

Young seedling plants in pots, such as Primulas, Cinerarias, Cyclamen, Gloxinias, Calceolarias, &c., should be kept growing freely.

During this month many kinds of hardy flowering shrubs can be propagated with great ease in the open garden border by selecting a spot a little shaded. If the soil is too heavy dig in some leaf-mold, or chip manure, and some sand. In such a spot may be successfully raised a young stock of different varieties of Dogwood, Deutzia, Weigela, Forsythia, Hydrangea, Spiræas, Privet, Honeysuckles, Syringa, Flowering Currants, Kerria, Ampelopsis, Tea, Noisette, and Bourbon Roses, and with more difficulty some of the Hybrid Perpetuals. Cuttings should be made

about three inches long, of firm new wood, retaining a leaf or two at the summit. If the weather should be dry, a little attention to syringing the foliage three or four times a day for a few days, to keep it fresh, and less frequently afterwards, will be necessary, and in ten or twelve days the cuttings will be rooted. They can be left to stand and make a growth until they drop their leaves in autumn. In the same way can be started cuttings of such flowering plants as Begonias, Geraniums, Fuchsias, Heliotropes, Lantanas, Variegated Euonymus, Viburnum tinus, or Laurestinus, and others, which, when rooted, can be lifted and potted four or five in a pot, and be brought along by aid of a cold-frame until the cooler weather makes it necessary to remove them to the house or greenhouse.

It is a good time to bud Roses, and this is an art that every one who loves gardening should acquire. Although, as a rule, Roses on their own roots are preferable, since they do not throw up suckers from the stock to take away the life from the budded part, yet the occasion

frequently arises to secure a new variety or increase a desirable one by budding.

Celery transplanting will be carried on up to the middle of the month at the North, and later at the South.

White Turnips can be sowed all through the month, though in the colder regions it should not be too long delayed.

Sow Lettuce for fall use; the Cos varieties are best at this season.

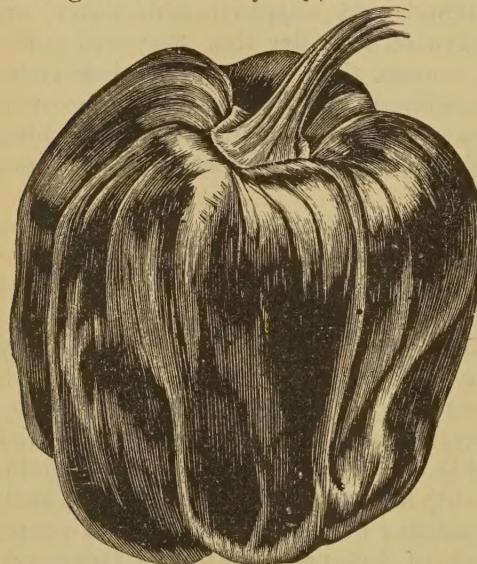
All intending to set new strawberry beds with plants from their own grounds should sink small pots containing good soil into the ground and root the runners into these pots. By the middle or last of August they will be ready to take up and transplant; such plants will make a fine growth before winter and be ready to start strong in the spring.

Stop the raspberry canes by pinching when they are from two and a half to three feet high, making them branch more freely.

Continue to tie the new growth of the grapevines, and remove the fruit which appears in excess of the strength of the vines.

### CAPSICUM, OR RED PEPPER.

Besides numerous ornamental plants, the Nightshade family supplies three im-



SWEET MOUNTAIN, OR MAMMOTH.

portant garden vegetables, the Potato, the Tomato, and the Red Pepper. The last, though less important than the other two, the cook would not be willing to spare when the pickling season arrives.

The pungent, acrid oil of the capsule and seeds imparts a heat to the stomach which stimulates it, enabling it, it is thought, better to perform the task of digestion when offered such food as pickles furnish. The Red Pepper, *Capsicum annuum*, though now cultivated in all tropical countries, was probably originally derived from the tropical regions of South America. Research has revealed evidence on this point until it is almost certain that this plant, with the Potato and the Tomato, was a vegetable treasure of the New World. The low-growing bushy plants from one to two feet in height, with bright green leaves, bearing at first white flowers and pendant fruits, which are bright scarlet when ripe, can easily maintain a claim for being ornamental as well as useful.

Some botanists hold the opinion that the different garden varieties are derived from several species, directly or by hybridizing. The cultivation required is the same with them all. The seed is sowed early in the season in the greenhouse, window, or hot-bed, and the plants are grown on, in the same manner as the

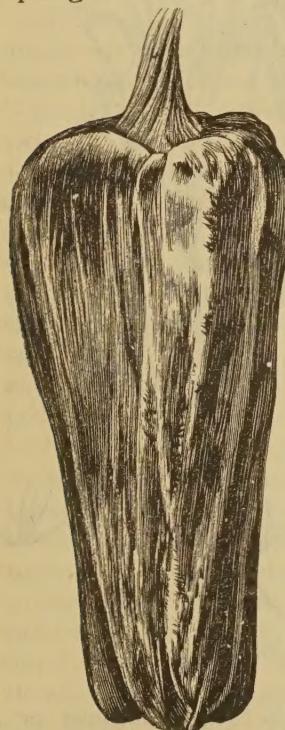
Tomato, so that they will be a few inches in height, strong and thrifty, by the time the frosts are past, and they can be safely transplanted to the open garden. The plants should be set from a foot to



GOLDEN DAWN PEPPER.

eighteen inches apart, allowing them space to develop. A great part of the fruit will ripen in this climate even if the seeds are sown in the garden the last of spring when the soil has become warm.

The seed should be sown—a few in a place, or in rows—where the plants are to stand, and the young plants thinned out so as to stand a foot apart. One of the best known and most widely cultivated varieties is the Bell, or, as it is sometimes called, the Large Bell, or Bell Nose Pepper; the plant grows two feet or more in height, and is strong and branching; the fruit ripens early, and the capsules or pods are often



LONG RED PEPPER.

four inches long and three inches in diameter, and when ripe a bright, shining, coral

red color. In taste they are not so pungent as many other kinds.

The Sweet Mountain, or Mammoth, is similar to the last in all respects, except that the fruit is of larger size. It has probably been derived from the last, and is equally desirable.

The Sweet Spanish is yet another variety like the Bell Pepper, and but little different from the Sweet Mountain.

Another variety undoubtedly having a similar origin is the Golden Dawn. The plant is like the Bell Pepper in habit; the fruit much the same in form, but of a rich golden yellow color, and more delicate to the taste. It has qualities that will make it a favorite when better known.



LONG RED CAYENNE PEPPER.

The Squash or Tomato-formed Red Pepper has fruit more pungent, and of the same general form as those described, but flatter, a good specimen being a little less than three inches in diameter and about two inches long; color red. It has been more cultivated for market than other kinds. BURR states that "an acre of land in a fair state of cultivation will yield about three tons."

The Long Red grows about two feet in height, and the pods are about four inches in length, and from an inch to an inch and a half in diameter; pungent, and when dried and pulverized is nearly or quite equal to good Cayenne.

The Cayenne Pepper of commerce is prepared from the pods of Capsicum frutescens, or cultivated varieties of it. This plant is not well adapted to our northern climate, as it is a perennial, consequently some small-fruited annual varieties have been substituted for it; one of the best of these is the Long Red Cayenne. It requires a long season to mature, and

it is necessary, therefore, to start the seed early in March, and advance the plants as much as possible before planting out when the warm weather comes.

The Chili, with smaller fruit, comes to perfection earlier, and much of the Cayenne Pepper in the market is prepared from this variety.

### THE VARIEGATED ANTERICUM.

A plant may be very beautiful and yet very difficult to propagate or to rear, and, consequently, will always remain rare; such a plant can never become a popular favorite, though we may admire it. It does not readily respond to the affectionate care we may give it, and so fails to receive the heart sympathy which many humbler plants elicit. The Daisy, the Violet, the Pansy, the Forget-me-not, and many other highly-prized plants, owe their popularity not only to their beauty, but also to the ease with which they are cultivated. The Geranium, or Pelargonium, could never have become so universal a favorite if it had not been so easy to multiply and raise that even the most unskillful plant-raiser can succeed with it. It is always pleasant to notice such a plant, for one has the assurance that any one who attempts its cultivation will succeed.

The variegated Anthericum has been sent out for several years, and yet it is certain that it is not yet well known. It is a Liliaceous plant, and its parallel-veined gracefully curving leaves are bordered on each edge by a white stripe, making it very showy. The plant blossoms freely during spring and summer, throwing out numerous long, drooping flower-stems bearing small, white flowers. Each node of the flower-stem is furnished with a small bract, and at this point leaves and roots form. After blooming the flower-stems can be cut off, laid on the soil and covered a little, and in a short time the rooted plants can be cut away and potted. This An-



ANTHERICUM VITTATUM VARIEGATUM.

thericum is excellent for vases, baskets and pots, growing well in the greenhouse, or window, quite free from disease, and little subject to insects. Its roots are thick and fleshy, requiring plenty of room. Another variety, known as picturatum has a cream-colored stripe through the central portion of the leaf, while each edge has a green border. It is quite similar to the other in habit.

# CORRESPONDENCE.

## THE CALCEOLARIA—PRIZE ESSAY.

Raising the Calceolaria from seed to bloom, giving in detail its full treatment.

When well grown, the herbaceous Calceolarias are very beautiful, and a few years ago they were among the most popular of winter blooming plants; but unfortunately they were crowded aside by other plants, and for several years their merits remained unnoticed; of late they are beginning to receive more attention.

They are, by many, considered rather difficult to cultivate, but such is not the case if their requirements are understood. The mistakes in their culture consist in growing them in too high a temperature instead of a cool one, in over-potting and over-watering the plants while small, and by so doing materially injuring their health and vigor of growth, thus rendering them very liable to the attacks of numerous insect pests.

The best time for sowing the seed is from the middle of May to the middle of June, for it will vegetate much better if sown before hot weather sets in.

In order to cultivate the Calceolaria readily and successfully a cold-frame will be found to be absolutely necessary; this should be placed on a bed of coal ashes, in a partially shaded situation, and the sash whitewashed or painted, so as to shield the plants from the hot sun. Then the sash can be raised or closed as may be necessary to protect the plants from severe storms and sudden changes in temperature.

The seed should be sown in a well drained pot or pan, filled with light, loamy soil; sow it very thinly and press it into the earth rather firmly with the bottom of a pot. Place the pot or pan in the cold-frame, and keep it rather close until the young plants make their appearance. The soil in the pans should be dampened occasionally, but avoid keeping them too wet, as it may cause the young plants to damp off.

As soon as the plants are strong enough to handle, they should be transplanted into other pans similarly pre-

pared, and placed about an inch and a half apart each way. These young plants should be carefully watered, and kept close and moist for a few days; but when they have taken root a little air should be given in order to prevent them from becoming drawn. As soon as the plants commence to touch each other they should be transplanted into three-inch pots filled with light rich soil, and be watered thoroughly, and then placed in the cold-frame as close together as possible, but the plants should not be set so close as to touch each other. Keep them rather close for a few days to enable them to take root, and afterwards give a little air day and night. As soon as the pots are fairly filled with roots, the plants should be shifted into pots two sizes larger, and treated precisely as before. This treatment should be continued through the entire summer and to the approach of cold weather, when the plants should be brought inside and placed in the coolest part of the greenhouse. If specimen plants are wanted, the repotting should be continued until the plants occupy eight or nine-inch pots. Never permit the leaves of one plant to touch those of another from the time the young plants make their appearance until they have ceased blooming.

Drainage is of the utmost importance; even the smallest sized pots should be one-third filled. In draining place a large piece of pot over the hole in the bottom of the pots, then around and above it place several smaller, and gradually use smaller pieces until the pot is one-third filled, and over this place a layer of moss to prevent the soil from falling through.

The soil should be light and rich and composed of two-thirds well decayed sods, one-third well decomposed cow or sheep manure, with a fair sprinkling of bone dust and sharp sand. Mix thoroughly and use the compost rough. In potting press it down well around the plants.

The precise time of blooming of Calceolarias will depend greatly on the temperature and situation in which the plants are grown, and as they do best in a cool



CALCEOLARIAS.

temperature they will not usually commence to bloom until the end of February or first of March, and they usually remain in bloom for a month or six weeks if the flowers are not permitted to become injured by damp. It is best to retard the flowering somewhat, for, the flowers will be small and the plants will

continue in bloom for a short time only, if forced into bloom.

The Calceolaria is very subject to the attacks of the red-spider and the green-fly. To avoid the spiders the plants at all times should be grown in a moist, cool atmosphere, but in the dark, dull days of winter be very careful to guard against damp, which would soon destroy the foliage of the plant. The green-fly can be prevented by scattering a few leaves or stems of tobacco among the plants in the cold-frame and renewing them occasionally. In the greenhouse they should be frequently given a slight fumigation of tobacco.

Every day the plants should be carefully examined and thoroughly watered, if necessary. It is of the highest importance in the successful cultivation of the Calceolaria to secure an uninterrupted growth from seed to bloom. To secure this the plants must be given a suitable soil, an ample supply of room for their roots, and they must be thoroughly watered whenever necessary. To do all this requires considerable care and attention, for a little neglect will almost ruin the plants. But no plant will much better repay the care and attention bestowed upon it than the Calceolaria.

CHAS. E. PARRELL, *Queens, N. Y.*

#### HANDSOME-LEAVED PLANTS FOR THE HOUSE.

Those who grow plants in the parlor or sitting-room are beginning to understand that specimens with foliage which is able to withstand dry air and dust are preferable to such kinds as will live under these conditions, but which will scarcely do more than drag out a miserable existence. A sickly plant is an annoyance, never an ornament. If we cannot have good flowering plants in the house we live in, and can have good plants without flowers, by all means let us choose the latter.

Observation of such plants as succeed well in the parlor or sitting-room, will show that all of them have quite thick leaves, of a firm, smooth texture. I am not able to think of one plant which does well in these rooms which would not come under this general description. Their firm, close surface resists the dust which would clog up the pores of more open leaves, and renders it a comparatively

easy matter to keep them clean by syringing or washing with a sponge. These leaves retain their freshness for a long time; they last for months, or years, in some instances. I have a specimen of *Ficus elastica* on which there are leaves which were there four years ago, and these leaves look as fresh and healthy as those of this season's growth. This is one of the best of all plants for culture in living-rooms. Dry air, dust and gas do not seem to affect it. It grows quite rapidly and is always ornamental. A small specimen is pretty, and a large one is magnificent, with its branches thickly set with great wax-like leaves, four inches or more wide and a foot in length. They can be dusted as safely as any of the bric-a-brac in the room, and the smooth, dark green surface of each leaf comes out after dusting, or, what is better yet, wiping with a damp sponge, looking as if freshly varnished.



LATANIA BORBONICA.

To grow the Ficus to perfection it must be given plenty of pot room for the first three or four years of its growth, shifting to larger sizes as fast as the pots are filled with roots. It likes considerable water, and a weekly supply of some fertilizer will conduce to a vigorous growth.

Palms of certain varieties are excellent for house culture, withstanding heat, dust and dry air nearly as well as the Ficus. The three best varieties are *Seaforthia elegans*, *Phoenix reclinata* and *Latania Borbonica*. The first named has long leaves, gracefully arching outward, and is, perhaps, the best. *Phoenix reclinata* has shorter leaves, of a richer color, and is stiffer in habit. The last named variety has broad, fan-shaped leaves, of a dark, shining green. These plants do not seem to make much growth during the season, and yet they soon become large enough to be very ornamental, and they improve with age. A fine specimen, five or six feet high, is worth quite a little sum of money.

The Palms like a good strong soil, well drained, and prefer a deep pot or tub to one large on the surface, as the roots go down when allowed to do so, and only spread out about the plant when cramped for room.

The only insect that has ever attacked my Palms is the scale, and I find it easy to get rid of him. I make a moderately strong soap-suds and go over the base of the leaf-stalks and among all crevices, with this mixture applied forcibly with a tooth-brush. The brush rubs the insects off and the suds kills them and helps to clean the plant. The leaves I wash with a sponge, using the soap-water somewhat weakened. In summer I put the plants on the veranda, behind a trellis, where they will be shaded and kept from the wind. When standing out of doors it will be necessary to give them water daily, as the warm air soon extracts the moisture from the soil.

E BEN E. REXFORD.

## THE WILD-GARDEN.

In some catalogues are advertised packages of seeds for the wild-garden, made up of a mixture of annuals and perennials; the seeds are to be scattered in some suitable spot and allowed to grow as they will; some will find the spot congenial, will thrive and give a display of flowers and will also crowd out their weaker neighbors. There will be, no doubt, some pleasure in watching the growth of the unknown seeds, and tracing their development to a flowering stage, but the results will, by no means, be as satisfactory as those derived from a more carefully and systematically planted wild-garden.

There are very few grounds in which there is not a waste corner that might be made very interesting by the addition of suitable plants that would grow with little care and attention. And in estates of a few acres, especially in New England, there is very often a damp or ledgy piece of woods, a spring, a bushy corner, or stony field considered of no value for tillage, and allowed to remain in its natural state, such a spot may be made very attractive by adding new plants adapted to the soil represented.

To cover the whole list of trees, shrubs and annuals suited to such localities would make an article of too great length, so I will confine myself to suggestions in regard to hardy perennials, for from this class of plants would really come the most valuable and available subjects for the purpose named, as among them is a great a variety in size, time of blooming, and color of flowers, and power of adapting themselves to surroundings.

Among hardy perennials are many very handsome flowering plants that are rather weedy for the flower-garden; they are weedy because they are strong, vigorous growers, and this is an objection to their use among more delicate growers, but this fault for the flower-garden is a virtue for the wild-garden, as such plants are there able to take care of themselves among the surrounding vegetation.

We have also in our gardens many plants that are out of their native condition; they keep within bounds, blossom nicely and are well behaved members of the garden family, but give them their natural home, perhaps along the edge of

a brook, or in a peaty bog, they will spring into a luxuriance of foliage and flowers unthought of in their garden quarters, and, instead of a clump of a plant with its flowers you will have beds of plants and sheets and masses of flowers.

We must, in the wild-garden, work for bold and striking effects, great masses of plants and flowers that we may admire at a distance, where the roughness and unfinish will not be apparent.

Those plants that are suited to the wild-garden of large extent are equally as well suited to the corners and rough spots in small grounds, where the same conditions exist.

When a selection of plants is made for a certain spot, you must first find if they will grow there, and not only grow, but thrive and hold their own with all their neighbors. Keep in mind it is to be a wild-garden, where everything is to take care of itself and fight its own battles with but little assistance. But care must also be taken not to introduce plants that are too weedy, so much so that nothing can grow near them. A balance of power is desirable, and especially so in soil of a uniform character. In some localities a great variety in the soil would serve to limit the growth of plants to the spots best suited to their wants.

Any list of plants made up for a certain locality would not be complete for another, for conditions vary so, yet there are certain plants that should be considered in making up every wild-garden, and I will mention some of them.

One of the most brilliant of our native flowers is the *Butterfly weed*, *Asclepias tuberosa*. It grows on poor gravelly or sandy soil, and covers, in some localities, acres of ground. The flowers are brilliant orange, freely produced for a long season. A plant is from two to three feet high, and often spreads as much, and a poor side hill or field could be made gorgeous with masses of this plant here and there.

The Adam's Needle, *Yucca filamentosa*, a well known garden plant, would thrive in poor soil, and groups and masses would form a striking feature in the landscape. The sword-shaped, ever-

green leaves would form bold masses of color in winter or summer, and a more beautiful display could not be produced than that made where the immense compound flower spikes are in bloom. It will do well, too, in a rocky soil or on ledges in pockets where there is a depth of soil, and nothing could be more picturesque than to see a mass of these plants against the sky on the top of a bank or ledge, or in a wide crevice on its side.

On dry, poor soil the pretty Spurge, *Euphorbia corollata*, is very useful. It is low, one to two feet, and has great heads of pure white flower-like involucres, produced all summer.

Many showy Compositæ will succeed on most soils, and make a great display with their bright flowers. The Perennial Sunflower, *Helianthus decapetalus*, and the Maximilian variety of *Hibiscus Mysouricus* are very desirable.

The yellow and brown Cone-flower, *Rudbeckia hirta*, now so common in many of our fields, and the White Weed, *Leucanthemum vulgaris*, are pretty, but too common.

In good spots of soil on dry ledges several dwarf Phloxes may be made to grow; the Starry Phlox, *Phlox stellaria*, the Moss Pink, *Phlox subulata*, and its varieties, and the Rock Cress, *Arabis alpina*, and in narrow crevices and little niches the House-Leeks or *Sempervivums*, *Sedums*, and Prickly Pears or *Opuntias*, will grow. In the *Sempervivums* there is a great variety in the rosettes of foliage, and they form elegant and interesting bunches of plants. Many of the *Sedums* have very pretty flowers in shades of yellow, red and purple. These succulent plants will grow where nothing else will, in the dryest spots wherever their roots can find a foothold in soil or in a crack in the face of a rock. Do not be content with only one or two kinds; there is a great variety in both House-Leeks and *Sedums*, and, as they will fill a place unoccupied by other plants, there should be as great a variety as possible. In a good soil, no matter how rocky it is, there are a great many plants that may be grown; the rocks will aid in retaining the moisture at the roots. As a rule, plants with thick, fleshy roots will do well in such localities; among them are the *Paeony*, *Campanula grandiflora*, and the *Dictamnus Fraxinella*, and among

bulbous plants the Tiger Lily, and the stronger *Thunbergianum* varieties. This would be a fine place for the *Clematis*. Imagine a rock or bush covered with *C. Jackmani* or other large-flowered kind in blossom; and the native Virgin's Bower is very showy in such a spot.

On the edges of open, wet land the Wild Senna, *Cassia Marilandica*, can be planted with advantage; it forms large masses, and has a splendid show of bright yellow flowers late in the season. The Mallows may be grown in wet soil; The gorgeous Marsh Mallow, *Hibiscus Moscheutos*, with its great pink flowers, and its cream colored companion, *Hibiscus flavescens*, both grow in masses, and are from three to four feet high. *Hibiscus militaris* grows taller and is a handsomer plant, but the flowers are not so large, but even they are three inches across.

The purple and white Thoroughworts form very effective groups when in flower, and the Cardinal Flower on the edges of streams or shady pools is a most brilliant plant in August.

In the woods the beautiful Trilliums can be introduced and Jack in the Pulpit, Violets, Pyrolas and Eupatoriums.

The list might be extended indefinitely to include hundreds of plants that might be made to succeed in the proper positions, but enough have been given to suggest what may be used. The best lesson, however, is experience, but it is well to avoid one experience; that is, introducing very weedy plants; be careful in the selection of plants, and it is not best to try to crowd too many different kinds into one spot, but rather many of one desirable kind—enough in one mass to make a conspicuous show when in flower. Of course, in making a selection it is best to secure a succession of bloom throughout the season.

A well filled wild-garden will afford a very great amount of pleasure; we all love the woods and fields, and the flowers we find scattered in one place and another over them. Nature has a large field to work on, but often she concentrates her energies on one spot to make it more than usually attractive. In the wild garden we may assist her in her work, and if we assist judiciously our reward will be great.

X. Y. Z.

## PALMS AS DECORATIVE PLANTS.

Few people, as yet, have been able or willing to indulge in those handsomest of home decorative plants, the cultivated species of the Palm family. I had contented myself, as many another, with admiring them as they have been grouped in tropical splendor at some exposition where they invariably carried off the greater honors, as they well deserved. But I have become wiser since suddenly and timidly venturing what I then thought a large expense in their purchase. I secured, first, a fine specimen known as *Brahea filamentosa*, which attracted my fancy by its strange and odd thread-like filaments. Having had the plant for some years, until it has grown large and handsome, I would not part with it for more than twice the sum originally paid

for it. It attracts much notice by its fine appearance. Since that time I have successfully reared large plants of the well known *Latania Borbonica*, or Fan Palm, and also *Seaforthia elegans*, whose long, fern-like, yet stiff leaves are well adapted to resist the sudden attack of a wind storm, which is the greatest enemy of our hill-top home. These with other varieties of Palms set in tasty vases for the house-front decoration in summer time are very handsome. For in-door decoration they have no equal in the bay window or conservatory, but form a splendid supplement for more delicate favorites. They require but little care, and will stand a cool atmosphere, such as would chill any ordinary house plant.

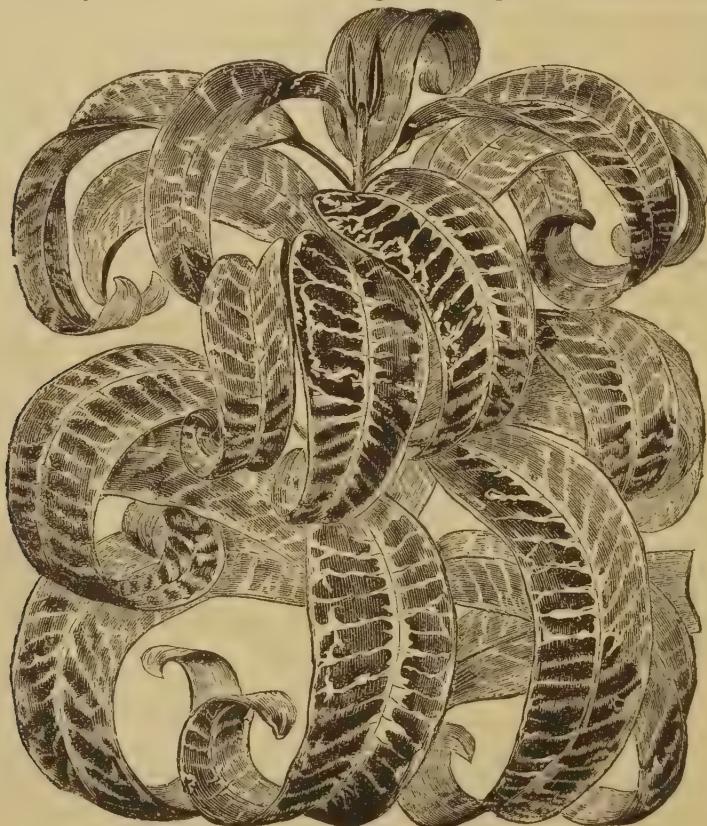
H. K.

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## CROTONS AND ANTHERICUM.

I confess to having a special liking for ornamental foliage plants, and every year I add some rare beauty to my collection, though I must confess that too frequently my enjoyment of some of them is all too brief, yet there is a great satisfaction in knowing how they look.

Everybody has heard of croton oil, but very few amateurs know how Crotons look, nor have they any idea of their beauty for the window garden. They know about castor oil, and very many have cultivated in their gardens the grand tropical Castor Bean, or *Ricinus*.



CROTON VOLUTUM.

Neither of these oils, though very useful, are very desirable, but the plants which produce them are. I will describe a few Crotons, that you may form an idea of their beauty.

making it very distinct from other Crotons. These are only a few of the many varieties. They do best in small pots and require full sunshine to develop their markings.



CROTON SPIRALE.

Croton bicornutum is a curious variety; its irregular-shaped leaves, dark green, spotted with yellow, have a horn-like extension of the mid-rib, which has given rise to its name. *C. nobilis* has long, pendulous leaves richly colored with many tints, crimson, yellow and green in many shades; in the footstalks of the leaves and mid-ribs the crimson is bordered with bands of deep golden yellow. *C. Veitchii* has leaves which attain a length of twelve to fourteen inches, and are traversed by broad bands of creamy yellow, changing with age to rose and carmine-purple. *C. spirale* is so named from its spiral leaves which are long and pendulous, with stripes of golden yellow. *C. volutum* has leaves rolled up from the end after the manner of the curving of a ram's horn; deep green with golden band down the center, from which yellow veins diverge and meet near the golden margin. *C. Youngii* is magnificent, with its leaves from one and a half to two feet in length, deep red beneath while the upper surface is dark green densely blotched and suffused with creamy yellow and bright rosy red. Croton La Dame Blanche has long, undulating foliage with white variegations,

*Anthericum picturatum* is an elegant plant, of easy cultivation and admirably adapted for the winter window garden, as it is not affected by the dry heated atmosphere. Its long, narrow, drooping leaves, which have a creamy white band



CROTON VEITCHII.

running through the center, renders it a very effective plant for a hanging basket or bracket. It throws up long spikes of small star-shaped flowers. Buds or short shoots are formed on the flower

stems, which, used as cuttings, readily root. It is also propagated by division and by seed. It was introduced from Good Hope in 1824.

MRS. M. D. WELLCOME, *Yarmouth, Me.*

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### A NEW MOLE-TRAP.

Whoever has a garden surrounded as mine, by old sod pastures, wherein the unfortunate proprietor has attempted for many a year to grow the bulbous plants over which the heart yearns with exceeding great desire—as dear to the heart as pleasant to the eye—will understand the feelings with which I saw, year after year, my first Tulips, Hyacinths and Crocuses destroyed ruthlessly by moles.

Only by planting in deep, bottomless boxes or crockery, were they at all safe. But these, after a time, would rot and crack with continued rains and freezing, and again was I left without protection.

Not only did my bulbs suffer, but my finest Roses and Lilies were plowed under and rendered sick and useless, sometimes before I could discover the invasion. My newly planted Sweet Corn, when just above the ground, would be left to stand green enough for a day or two, but grainless underneath, until soul and spirit were vexed and wroth over continuous planting. I bought a large, old-fashioned, wooden mole-trap of a farmer, home-made and clumsy, which

did me no service, since I could not get the thing to work properly, and in the meantime the work of destruction still went on. I used to sit out hours sometimes, under an umbrella, watching for these blind rascals to work, and when I caught one his brains paid the penalty. I had tried field Corn soaked in poison and put in the drain, but it was untouched. Then I wrote to a dealer, making arrangements for one of his famous mole-traps, when, lo, in desperation in the meantime, I again placed grains of Corn soaked in a strong solution of arsenic in the runways, and succeeded. It seems that the mole has a sweet tooth in his head and prefers Sweet Corn to the more common field grains I had at first used.

I submit the preceding for the benefit of any who may, like myself, have a common cause of complaint. It has proved, since I first tried it, again and again successful in destroying them. The Corn should be soaked over night in the poison, then placed in the runways.

H. K.

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### SUPPLYING PLANTS WITH AMMONIA BY THEIR LEAVES.

Every one who has compared the growth of plants in a hot-bed, over fermenting manure, with similar plants in the same degree of fire heat, has seen how much more luxuriant the former are, and how much larger their leaves; doubtless from the large supply of ammonia given off by the decomposing dung. I have read in a foreign journal of a suc-

cessful imitation of this by placing a few pieces of carbonate of ammonia near the hot water pipes, but not on them. It slowly evaporates, not so as to make any odor perceptible, but with a decided addition to the size and full development of leaves and flowers. This indicates an appropriation of nitrogen from the air by the leaves. \*



## FOREIGN NOTES.

### BOUQUETS UNDER WATER.

The *Revue Horticole* republishes an account given in a Belgian horticultural journal of a method by which a bouquet of flowers can be preserved fresh for a long time. The following is a description of the process:

A vessel of water is required; the vessel should be large enough to allow the submersion in it of a plate or dish holding the bouquet to be preserved, and a bell-glass to cover the bouquet. The dish or plate should contain no moss or other material; the water should be limpid and quite pure. Place the plate at the bottom of the water, and on the plate, submerging it, place the bouquet, which is maintained in an upright position by a weighted base previously attached to it. This being done the bouquet is covered with a bell-glass, the rim of which ought to fit exactly to the flat part of the plate; the bell-glass should be entirely filled with water, and without the least air-bubble.

Then all are raised together, plate, bouquet, and bell-glass filled with water, and placed on a table, carefully wiping the exterior, but leaving on the plate, around the base of the bell-glass, a little provision of water which prevents the entrance of air. The flowers in this condition will be preserved in all their freshness for several weeks, and their beauty is increased by a great number of bubbles of gas produced by the respiration of the leaves, and which attach themselves to the petals, appearing like pearls. The edge of the plate and the water that it contains should be concealed by a light bed of moss in which are set some other flowers. In the evening, by artificial light, a bouquet thus arranged produces a charming effect.

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### AMERICAN BLACKBERRIES.

Very persistent efforts have been made for a few years past to cultivate the best of our American varieties of Blackberries in England and Scotland, but it appears that the climate is not adapted to them, for they make only a weak growth, bloom late, and fail to ripen their fruit.

### PATENT HEDGES.

The English people are amused, if not amazed, at the claims of certain parties in this country, viz: the Dayton Hedge Company, and the Michigan Hedge Company for a new method of making hedges. "We have it on high authority," says the British journal, *Forestry*, "that there is nothing new under the sun, and we certainly thought that anything new in such an ancient and well-worn subject as hedge-planting was hardly possible. We also thought, on noticing the correspondence in our American cotemporary, that there must necessarily be something specially good and novel in a method of planting that has been deemed by our shrewd relatives over the Atlantic worthy of protection by patents. On examination, however, we find that there is nothing in it; the system being that of bending or layering the stem of the plant underground, which was practiced more or less in this country and in America by the great-grandfather of the oldest inhabitant in either country. To our old-world insular intellects the claims of this American 'Hedge Company' appear incredibly absurd; but as we gather from our cotemporary that the agent of the company, in fulminating his threats of prosecution of those who infringe the patent rights in question, has \$150,000 to do it with, we are constrained to believe that to a certain section, at least, of the Yankee mind it has bottom in it."

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### A NEW BOXWOOD.

The wood of a new species of Box, or *Buxus*, *B. Macowanii*, of South Africa, and lately brought to notice, promises to be serviceable for engravers' use. This newly discovered Box is a small tree. "It is rarely met with over a foot in diameter by twenty-five feet of bole, but it is sufficiently abundant to furnish a large supply of wood." The above statement is by the Superintendent of Woods and Forests at the Cape of Good Hope. In view of the rapid exhaustion of the supply of Boxwood in the Black Sea regions this new discovery is of great importance.

## FLOWERS IN PARIS.

The flower markets of Paris are the best I know anywhere, and the gay city has flowers of the finest in abundance, but then I have never seen Rome, or Florence, or Cannes, nor have I been to New York where I am told the rich citizens almost smother their guests with flowers. Near Nôtre Dame is a little village of booths devoted to the sale of plants and flowers. It is a clean open space, and the carriages come and go quite laden with Roses or Callas, Pansies, Marguerites, or with Ficus or Palms. Here you see many delightful little wicker-work baskets filled with Pansies in full flower, and so planted that, if the basket be dipped in water now and then, the whole arrangement keeps fresh and beautiful, and the Pansies go on producing their rich velvety flowers for weeks after they are purchased and taken home. There are great loads of crimson Wall-flower, Guelder Roses, armfuls of Lilacs of various colors, and well grown Marguerites, large bushes in small pots, by the hundred. The air is redolent with fragrance from the Roses and Narcissus flowers which are stacked up in bundles in the shade and sprinkled with water to prevent their fading. The flower trade here lasts all day, but there is a wholesale market of flowers nearly every morning near the Madeleine which is well worth seeing. The trade in flowers here must be enormous; I must ask M. JOLY what it amounts to annually. Our own growers for market are hard to beat culturally, but the people here are ahead of us in the artistic usage of beautiful flowers.

VERONICA, in *The Garden.*

## HERBACEOUS PÆONIES.

What is the coming garden flower? was the question I heard asked the other day. Some one suggested Anemones, but then the Anemone is popular already, and Queen Iris—thanks to Prof. FOSTER—is already on a gilded throne. I suggested the race of Pæonies as most likely to take the popular fancy, for we have but few things so bold and noble amongst our summer flowers. They are beautiful from the first day their tinted leaves and stems appear above ground until after their great many-colored flowers fade, and then their color variety is nearly in-

finite. Especially do I admire the single kinds, pure white, soft pale yellow, rose, pink, peach, salmon-red and satin-like crimson. These single kinds have a bright yellow tuft of stamens, and are most effective as seen vigorously grown and in flower. For bold effects big beds or groups of these herbaceous Pæonies are not easily surpassed, and when so planted one may fill up the spaces between the roots with bulbs of any good strong-growing Daffodils, such as *N. Horsefieldi*, *N. maximus*, or *N. obvallaris*. So planted, the Daffodil flowers contrast well with the young foliage of the Pæonies, and their dying leaves are hidden as the Pæonies themselves develop their leaves. In all large gardens on warm, rich soils a selection of say twenty of the very best varieties, single and double, would produce an effect not easily to be obtained in any other way. Cut in the half-open bud stage, their flowers are very durable and most gorgeous in big pots or vases. VERONICA, in *The Garden.*

## NEW METHOD WITH BULBS.

In view of the long time that bulbous plants, such as Tulips and Hyacinths, occupy the beds in proportion to their duration of bloom, the head gardener of Paris proposes to pot them all, and to plunge the pots where they are wanted, so that as soon as the blooming season is passed they can be taken up and set elsewhere; their places in the beds will then be ready to receive plants that are seasonable. In this way the beds will always appear attractive. Details of the process may be given hereafter.

## FORSYTHIA SUSPENSA.

What a showy bed this beautiful shrub makes if, after planting, the branches are pegged down so as to cover the ground, and then the plants allowed to grow at will afterwards! In this way the slender arching shoots soon form quite a thicket, which, when covered with golden blossoms, is extremely effective, and at the same time most uncommon.

H. P., in *The Garden.*

AUSTRALIAN fruit-growers made a shipment of Apples to England which arrived there in perfect condition early in May. Apples in Australia ripen in the spring.

## PLEASANT GOSSIP.

### AMARYLLIS ATAMASCO.

The Atamasco Lily is a native plant of so much beauty, and so easily submits to cultivation, that it should find many admirers to give it attention and the little care it needs. It grows naturally from Virginia to Florida, in moist soil, and blooms from March to May. The foliage is narrow and grass-like, and makes but little show except when a considerable clump is growing in one spot, and this is its natural habit. The flowers are about three inches in diameter, borne singly at the summit of an erect scape, standing from six to twelve inches high; the colored plate this month is a full-sized representation of them; they are white, tinged with pink, with a deeper color at the extremities of the divisions.

This plant can be raised in the open garden far north of its natural habitat, and especially where snow covers the ground in winter. In the fall a good protection should be given the bulbs by a covering of coarse litter, or leaves, brakes, or evergreen boughs. Served in this manner, and the covering left until the heavy freezing is past, the bulbs will be preserved sound, and will promptly push on the arrival of mild weather.

As a pot-plant the Atamasco Lily is quite satisfactory. The bulbs can be kept through the winter in dry sand in a cool cellar, but free from frost. Pot the bulbs in March, either singly in small pots, or four or five in a five-inch pot, in good, light soil; water sparingly until growth commences, and then more freely, and the flowers will open in May.

Placing several bulbs in a fair-sized pot is preferable to single potting, as they appear better with a number of them together. It is a satisfaction that the bulbs increase rapidly, and one can soon have a considerable stock of them to give away or to keep.

After blooming in pots the plants should be allowed to ripen; plunge the pots in the garden, giving them no further care, except to give water in the early part of the season.

### SUMMER PRUNING VINES.

What time in summer is best to cut back my Grape-vines to let in the sun to the fruit?

I. H., *West Chester, Pa.*

Every summer sights may be seen among Grapevines in gardens that make one shiver. Nothing is more common than to allow Grapevines to grow without attention, letting the new growth of wood and leaves run together and over each other and to fall down over the fruit. When this has gone on until July or August, there arises in the mind of the would-be cultivator, a thought that something should be done; he starts in with a large knife—if he fails to have a sickle or grass-hook, in which case that is used—and an indiscriminate shearing is made, cutting away two-thirds of all the new growth, and often leaving the fruit exposed without a single leaf beyond it on the stem. This is done with the absurd idea that it is necessary to expose the fruit to the sun to ripen it. All growth depends upon the leaf of a plant, not only that of the stem, but the flowers and the fruit; the ripening process is wholly dependent upon the leaves; denude a plant of leaves permanently and that is the end of all life in it. Every process of the plant, from the first movement in the spring throughout its entire growth, including the blooming, the setting of the fruit, its gradual increase to full maturity, and ripening, all depend upon the leaves. When this is understood it will be perceived what a pernicious practice is that of removing a large portion of the foliage of Grapevines. And yet this practice has been widely adopted, and it is not improbable that some who may read these lines will have already this summer so treated their vines, or are intending to do so.

What, then, is summer pruning, which is so often mentioned? It consists of several operations. The first is merely rubbing off the swelling buds in the spring, when they are judged to be in excess. Some skillful vine-growers never go beyond this, being able to regulate the entire growth of the season by timely

attention before the leaves appear. If, however, disbudding, as the above described operation is called, has been neglected, and growth has commenced, the young shoots but a few inches in length can be removed to the extent thought best, leaving only as many canes to grow and bear as the vine is thought able to sustain. Thousands of acres of vineyards, in fact the great body of them in this country, have no other summer pruning than this. The new canes as they grow are tied up, or are allowed to droop over, according to the general method of pruning and training adopted, and the whole of it is preserved, never removing a leaf. But summer pruning is carried further by some, and consists in stopping the growth of the young canes by pinching with thumb and finger the tender growing point, thus stopping its extension. The general rule observed in pinching is to stop the growth at the third leaf beyond the last bunch of fruit. After this has been done the uppermost bud, the one in the axil of the last leaf, will rapidly swell and start, sending out a new shoot; after this has made two or three leaves pinching is again resorted to, and this is usually sufficient to keep the growth within the limits of the trellis. The object is to leave sufficient foliage for the perfect action of the vine, and yet to hold it so in check that while the trellis is covered it does not much overlap, the whole being fully exposed to the sun. This method of pinching is pursued usually on vines that are spur-pruned, and which, consequently, have a great number of growing shoots. Careful training is required to enable one to employ it judiciously and with beneficial results. We shall be pleased to hear from those of our readers who are interested in Grape growing, giving account of their modes of pruning and training.

#### HEMEROCALLIS.

In the MAGAZINE for May the *Hemerocallis flava* is illustrated and described. Will you please inform your readers about *Hemerocallis Kwanso variegata* and others, and state whether they are hardy, like *H. flava*, or not? S. GILBERT, *Lanesboro, Minn.*

Besides *Hemerocallis flava*, the best known is probably *H. fulva*, which grows taller, and has flowers of a brown or tawny orange color, opening in July. There is a variety of *H. fulva*, similar in all other respects to the species, but with

double flowers. *H. Dumortieri* is the earliest blooming species; its flowers are smaller than most other kinds, orange colored, streaked on the outside with red. *H. graminea* has narrower foliage than the other kinds; the flowers are smaller, but of the same color as *H. flava*. It is very pretty, and the flowers when cut and placed in water are more lasting than those of any other of the varieties. *H. Thunbergii* is a large, strong grower, standing two to three feet high, with large, lemon-colored flowers, very showy. The variegated leaved *Kwanso* and the double-flowered *Kwanso* are both considered to be varieties of *Hemerocallis fulva*, which have originated in Japan. The variegated variety is a handsome plant, with flowers much like those of *H. fulva*; and the flowers of the double variety, which are more lasting than the others, are of the same color. Besides these there is yet a new variety having both the variegated leaves and the double flowers; this, in the parlance of the garden, is *H. Kwanso pl. fol. variegatus*. It was exhibited at the show of the Royal Horticultural Society, April 27th of the present year. It is described in the report as "a variety of the double-flowered Day Lily, with leaves marked with longitudinal bands of sulphur white. Very bright and effective, and admirably adapted for decorative purposes under glass." All of the above are hardy and valuable perennial plants.

#### A SNOW PLANT.

One of our readers at Sheep Ranch, Calaveras Co., California, sent us a specimen of the Snow Plant, *Sarcodes sanguinea*, which arrived here the first of June. The note which accompanied it states that "it was taken from the grove of Big Trees of Calaveras County, which is fifteen miles from this place." The brief directions were to "plant in a shady place and keep damp, and I think it will bloom for you." The plant was received in good condition, the directions were complied with, and it opened a few of its flowers and the spike elongated somewhat, but it did not bloom freely. Evidently its forest home and native air are essential for the well being of this plant. The color of the flower is a brilliant crimson, that of the bracts at the base of each flower a dull crimson.

## DANDELIONS AND ANTS.

I have considerable Dandelion on my lawn, and am also troubled with ants on the same. Can you give me a remedy for either or both? Would seeding every season on the grass be a preventive for the former, if so, what seed would you recommend as best for the lawn?

L. B., Berlin, Ont.

Sowing grass seed on a well grassed lawn would be a waste of seed and labor. Fix a long handle to a sharp chisel and thrust it into the soil by the side of a Dandelion plant, and cut it off below the surface. In most cases they will not start again. Some weeds are very tenacious of life, and a common one of this kind is the Burdock. Having its head cut off does not seem to prevent its starting again. We have found a good way to manage this plant by cutting it off just below the surface of the ground, removing the top part, and then pouring a few drops of kerosene oil on the cut surface of the root; it appears to penetrate and destroy it wholly.

Ants can be trapped with pieces of coarse sponge sprinkled with sugar. Place the bits of sponge near the ant holes, and visit them several times a day, picking them up quickly and dropping them into a pail of water carried along for the purpose. Persistence in this course for a short time will clear them away. We have seen limewater advised to destroy ants by pouring it in their runways, and also a solution of common washing soda in the same manner, but have had no experience with either of them. If any of our readers can give any information about the use of either of these substances to destroy ants we shall be pleased to publish it for the benefit of many, for the presence of ants in a fine lawn is an aggravating nuisance.

## WHITE KENNEDYA.

I enclose a few seeds of white *Hardenbergia*, (Kennedy.) I do not find it mentioned in your catalogue, and in but one of the twenty-five other catalogues I have. It is an evergreen vine, though mine is trained in bush form. It blossoms in January and February. We think it is beautiful when in blossom. It looks like one huge snow bank, with its long racemes of tiny pea-shaped blossoms. I think all florists would appreciate the plant if they ever saw it in blossom. It makes up beautifully in bouquets.

E. N. H., University, Cal.

Several species of the Kennedya are cultivated as greenhouse plants. According to the note above, the variety mentioned is raised in the open ground in California. It is an Australian plant.

## A PANSY BED.

Please inform me how to prepare a bed for Pansies, naming the best fertilizers, and giving all other necessary directions. I have had bad luck with mine, and would like to know why it is.

V. L., Warrenton, Va.

A spot for Pansies should be selected where it is a little shady, at least in the middle of the day, if such a spot is to be had, but if not, it can be where it is fully exposed; a place entirely shaded is not desirable. A light soil made rich with well rotted stable manure would be a place the plants would delight in, but if the soil is heavy it can be greatly improved by digging in plenty of the same kind of fertilizer. Seed can be sown any time the present month or the next to raise strong plants before winter. Sow the seed in shallow drills, and water lightly; take a little freshly cut grass and sprinkle it lightly over the bed, thus making a mulch to prevent the soil becoming too dry. Watch carefully for the first appearance of the young plants, and as soon as they appear arrange the grass to lie between the rows, allowing the sun access to the plants, otherwise they would quickly become drawn. If weeds should appear remove the mulch and hoe the soil, afterwards mulching again. When the plants are sufficiently strong, or about an inch high, transplant them to stand from four to six inches apart in rows, with the rows ten to twelve inches apart. The location of this permanent bed and its preparation should be the same as already described. If the weather should be very dry after transplanting, it will be necessary to supply water as the case may indicate. By following these directions one need not fail to have vigorous plants by October.

## SUMMER PRUNING VINES.

In the June number of the MAGAZINE, W. C. STEELE advises Grape growers not to trim vines in summer. Does this mean that suckers or shoots are to be let grow at will, and if so, is it good advice?

JAP.

We leave this inquiry to our readers to answer, and have no doubt it will meet with correct replies. It may be proper to say that Mr. STEELE's advice was probably given to counteract the hedge-shearing style of trimming vines elsewhere noticed in this number, but this is said without the knowledge of Mr. S., and he will probably make himself clearly understood in a future number.

**PEGGED-DOWN ROSES.**

A correspondent of the English journal, *Gardening Illustrated*, gives his experience with pegged-down Roses so fully and clearly that it cannot fail to be found useful to those who desire to try this very effective method of training. The material portions of the article are as follows:

In order to form beds for pegged-down Roses that are to last in a satisfactory condition for some years, it is necessary that the plants should be on their own roots, and medium-sized ones are better than large ones. Next to having suitable plants is the question of soil; unless that is of the right sort, and in sufficient quantity, the undertaking will not be a permanent success. How long beds of Roses grown in this way will last in a thriving condition I do not know, but I may remark that plants in large beds, formed fifteen years ago, made as good growth during the last summer as at any time previous; in fact, they are in the most vigorous condition. But then the soil was well prepared. In the first place the top or surface was taken off and laid on one side, the depth of soil thus removed being about twelve inches; the bottom soil was then taken out to nearly the same depth, and its place was supplied with fresh material, consisting of three parts loam and one part thoroughly rotten hot-bed manure. With this the surface soil was mixed, so that the plants had nearly two feet in depth of good material in which to grow, and the quantities of flowers which they annually produce show that our labor was not lost upon them. Notwithstanding the length of time they have been planted, they still continue to throw up shoots, five or six feet long, and almost as thick as a man's thumb, and that in such numbers that we have always plenty of young wood to take the place of that annually cut out. It appears to me that this is the secret of growing Roses in pegged-down beds. Young wood of suitable strength will always produce much finer flowers than could be had from spurs on branches two or three years old. It is, therefore, desirable to start with a thoroughly substantial soil, and to give liberal treatment afterwards.

The planting out of Roses from pots may take place at any time, but early in May is the best season in the year for

such work. When planting, let the collar of the plant be placed a little under the surface; the first summer's growth should be allowed to grow in its own way. In autumn a light dressing of animal manure should be spread on the surface and lightly forked in. In exposed situations, where frost is likely to be severe, the shoots should be pegged down before frost sets in, but except in these cases, they are not likely to sustain any harm, provided the pegging down is done before growth commences in the spring. By the end of the second year there ought to be a sufficient number of branches to cover, when pegged down, the whole of the surface at distances of nine inches apart. After that, routine work will consist in cutting out the old branches which have flowered, in order to make room for the young ones. This may be done either in November or December after the pruning is done; the surface should be cleared of all rubbish, and once in two years the beds should have a dressing of short farmyard manure, laid on pretty thickly and carefully forked in about the roots. Such portions of the manure as cannot be buried with the fork should be covered with some fresh soil. I may mention here that in any case in which there may happen to be too little young wood to cover the surface some of the old branches may be left. If the young side-growths which flowered during summer are pruned back to a spur, leaving two or three eyes to each, they will flower freely; but young growth which has not flowered is in every way preferable. When dealing with established beds, there will be long vigorous shoots. These should be shortened back somewhat, because the stronger the wood the better will be the flowers produced. If shoots, the whole length of a year's growth are left, buds nearest the ends where the wood is weakest will break, while those near the stem, where the branch is strongest, will remain dormant.

The summer management will consist in keeping the beds free from weeds, and, in all cases where they are expected to be in the best possible condition, the roots must have plenty of water in dry weather during the early part of the summer. Plenty of moisture at the roots is also especially necessary while they are in full blossom, as if they get ex-

hausted at this stage, the after growth, on which the supply of flowers for next year depends, will be weak, and, in all probability, mildew will attack the leaves and seriously injure the health of the plants. One part of the summer management will consist in attending to the rising branches. In order to secure the strongest growth possible it is desirable to let them grow erect in their own way, until they are four or five feet long, before pegging them down. In our case, we allow them to have their own way until the middle or end of August before we peg them down, and then we deal with the strongest shoots in a gentle manner, bringing them down by degrees. We do not study trimness so much as the securing of a plentiful supply of well developed flowers, and this we cannot have without vigorous growth. As Roses grown in this manner flower with great freedom, it is desirable to thin out the flower buds as soon as they are large enough to handle—a practice more desirable in the early part of the season than later in summer. These instructions, I should have said, are applicable only to Hybrid Perpetuals.

#### A POLYANTHA ROSE.

I would like to tell the readers of the MAGAZINE about my Polyantha Rose. Last summer I put it out in the ground and it grew and bloomed nicely. Last fall I did not take it in as I had no room, and thought I would see how it would winter out. I gave it a light covering. This spring it had no signs of life, but I dug around it and let it stand, and after a while it sprouted up, and now it is a beauty, and has over eighty buds. It is Mignonette, a choice variety.

MRS. N. M. R., *Haddam, Kansas.*

#### THE CLIMATE OF OREGON.

This country is the florist and farmers' paradise, a sort of perpetual summer. I never saw such a variety of lovely flowering shrubs and Roses as they have here, and at the same time such a lack of care or desire for plants. I mean as a body; of course, there are some nice places. What do you think of a climate where Roses are blooming outside until New Year's day and after, and in bloom again before the fifteenth of April. Such it has been here. E. A. S., *Portland, Oreg.*

#### THE FOUR O'CLOCK.

The Four O'Clock, *Mirabilis Jalapa*, is one of the most interesting annuals of the garden, and as beautiful as interesting. It is one of the night-blooming plants, and takes its common name from the fact that it expands about four o'clock in the afternoon; the flowers remain open during the night, and close in the morning. It is very fragrant, and this seems more perceptible after sunset, when it diffuses its perfume for a considerable distance through the air, making us sensible of its charms when other



*MIRABILIS JALAPA.*

flowers are lost to sight. This, or some other of the night-blooming flowers, gave rise to the beautiful sentiment uttered by Mrs. SIGOURNEY :

O, let us live, so that flower by flower,  
Shutting in turn, may leave  
A lingerer still for the sunset hour,  
A charm for the shaded eve.

The erect flowers are about three inches across, white and red, or crimson, yellow in different shades, and white and crimson striped, and yellow and crimson striped, all bright and showy.

The plants are easily raised from seed sown in mid-spring, when the soil has become warm; they grow from a foot and a half to two feet in height, and bloom all through the summer and until destroyed by autumn frosts. It is best to sow the seeds where the plants are to remain. The root is fleshy, in shape something like that of a Beet, and is perennial; it can be kept over winter in sand in a dry place, not too cool, like that of a Dahlia, and be planted out again

in spring; this course may be continued year after year, though it is but little practiced for the reason that the plants are so easily raised from seed.

The specific name of this plant was applied to it by LINNÆUS, who supposed it to be the source of the jalap of commerce, which, however, was an error, as this drug was and is prepared from the root of *Exogonium purga*, a plant native of Mexico, though an article with somewhat similar properties, derived from some species of *Ipomoea* has been substituted for the genuine article. One of the common names of this *Mirabilis* is *Marvel-of-Peru*, a name that indicates its origin. A garden variety with golden variegated leaves is quite showy.

*Mirabilis longiflora*, with a white flower six inches in length, also fragrant and night-blooming, and *M. dichotoma* with yellow flowers, smaller than those of *M. Jalapa*, are also cultivated, but more rarely than the special subject of this notice.

#### EVERLASTING FLOWERS.

Since the attention of ladies has been called to the cruelty practiced to supply them with birds for personal adornment, this style of head trimming has been abandoned by all ladies of nice taste, and a bird, and almost even a feather, on a hat now marks its wearer either as one of the *vulgaire*, or at least as lacking in that delicacy of taste that is peculiarly characteristic of the genuine lady. But bright colors and appropriate objects of graceful form, when worn with taste by ladies, are pleasing accompaniments of their attire, and handsome ribbons and beautiful flowers will always be largely employed, as they have peculiar and superior merits for this purpose.

The manufacture of artificial flowers has been carried to a high state of perfection, and it is almost impossible to criticize the best of them or to deny their beauty. That they should not be worn on the person when even the simplest natural flower can be had, and will bear such usage, is a fact so intuitively perceived by a person of good taste that the suggestion seems almost gratuitous. But for the permanent decoration of a hat, which is necessarily exposed to all kinds of weather, it would be difficult to find any thing more generally satisfactory

than artificial flowers. The only criticism of possible force is that imitations of objects so frail and evanescent do last so persistently. They express, apparently, what we would like flowers to be, rather than what we know them to be. But such criticism will be unheeded, as perhaps it should be, by the popular verdict.



ACROCLINIUM ROSEUM FLORE-PLENO.

There are, however, natural flowers of texture so fine and lasting that they can be worn for a long time exposed to the weather, and they are exceedingly appropriate for hat ornaments. They are what are called everlasting flowers. These and some of the handsomest of the grasses will make a beautiful and lasting trimming; the employment of ar-



BRIZA.

ificial everlasting flowers and imitation grasses is also beyond the nicest criticism. In using the natural products they could easily be renewed or changed, as one might fancy. It is not supposed that these should be wholly employed for the purpose here named, for they do not have the variety that is necessary, and that can be obtained in the use of artifi-

cial flowers that cover a wide range of the world's flora, but they can be employed to some extent, and in many cases with the best of effect.

There would certainly be one great advantage in the use of everlasting flowers and grasses, if ladies would only take to raising them for their own use. It would prove a source of increased health and strength—a beautifier of the person as well as the attire. One of the handsomest of the everlasting flowers is the double-flowered *Acroclinium*, which is here figured. The flowers are quite double, rose-colored, and of graceful outline. The single *Acrocliniums* have



BROMUS.

longer been in cultivation, and are better known. These are both white and rose-colored, somewhat of the form of a single Daisy.

Besides the *Acrocliniums* there may be mentioned the *Rhodanthe* of several species and varieties, hardy flowers of different shades of purple, and white with yellow center; the *Waitzia*, with yellow and orange flowers; the *Helichrysums* of different varieties, with flowers of white, yellow and brownish red shades; the *Xeranthemum*, white, purple and rose-colored; the white *Ammobium*; the white, pink and white, orange and purplish *Gomphrenas*; the *Helipterum*, both white and yellow; besides, the *Gypsophila* and the *Statice* can be similarly employed. They are all easily raised from seed in the open ground. The grasses that are equally useful are numerous, but two kinds are always admired, and are, in fact, made in imitation in great quantities; these are the *Briza* and the *Bromus*.

The everlasting flowers and handsome grasses can be used for a great variety of decoration.

#### JAMES VICK STRAWBERRY.

Several cases have been brought to our notice where this variety in the garden has excelled in productiveness by two or three times such sorts as the Sharpless and Manchester in exactly the same conditions.

#### ROT AND MILDEW OF GRAPES.

At the meeting of the Missouri State Horticultural Society in December last, a very valuable paper was read by Mr. G. E. MEISSNER on the subject of the rot and mildew of Grapes, diseases that prevail to some extent in most vineyards, and that are very destructive in many places. Mr. M. mentioned the Ives, Perkins, Worden, Lady, Green's Golden, Montefiore, Mason Seedling, and Pocklington as suffering less from rot and mildew than most other kinds. It appears from Mr. M's statements that the mildew—the same that affects our vines, *Peronospora viticola*—"has prevailed to an alarming extent in the old world, notably in Southern France, and in Italy, and the ravages caused by it in those countries have been scarcely less damaging to their crops" than those of the phylloxera.

Mr. M. then read some translated extracts of papers published in France relating to the discovery of remedies "which seem at the same time simple and efficacious" for these diseases of the vine.

One of the articles is a communication by Professor MILLARDET, of Bordeaux, entitled "On the Treatment of Rot and Mildew," in which he says: "On the first of May last I made a communication to the Society of Agriculture of the Gironde, concerning a treatment of the mildew by means of a compound of lime and of sulphate of copper (blue vitriol). The knowledge of this mixture, the determination of the proportions of the composing substances, the instruction as to the most favorable moment of their application, are the results of two years of study and experiment made with the help of Mr. ERNEST DAVID, manager for Mr. NATHANIEL JOHNSTON, the proprietor of the Chateaux Dauzac and Beaucaillou in the Midoc. In consequence of this communication several proprietors in the Midoc were led to apply on a large scale the treatment which I had recommended. Mr. JOHNSTON alone, who entered upon it with a will, had the treatment applied to fifty thousand vines on his two establishments. It is the result of these experiences which I take the liberty to submit to the academy.

"To-day, on the third of October, the treated vines present a normal vegetation. The foliage is healthy and of a beautiful green, the Grapes are black and perfectly matured.

"The non-treated vines, on the contrary, present the most miserable aspect, the most of the leaves have dropped, the few which remain are half dried up. The Grapes, which are still red, can serve for nothing else than to make a "piquette." The contrast is most striking."

After some remarks on the varieties treated, etc., Professor MILLARDET gives the mode of treatment as follows: "In 100 litres (26½ gallons) of water dissolve 8 kilo. (about 17½ pounds) sulphate of copper—also make with 30 litres (about 8 gallons) of water and 15 kilo. (33 pounds) of fresh, unslackened, lime a thick lime milk, or lime wash, and mix it with the solution of sulphate of copper. It will form a bluish pickle. The operator, stirring it up, pours some of this in a can, or bucket, which he takes in his left hand, while with the right, with a small whisk broom, he sprinkles or spatters the leaves, taking care to avoid touching the Grapes with the compound. No danger to the person need be apprehended.

"With Mr. JOHNSTON fifty litres of the mixture has been sufficient for the treatment of 1000 vines. The treatment has been applied from the 10th to the 20th of July. At some points it has been repeated a second time, about the end of August, but without marked advantage. It is shown that a single application is sufficient. The mixture, when it has dried, adheres well to the leaves. After the treatment the vines have gone through several heavy thunderstorms at the beginning and end of August, and frequent rains in September. Notwithstanding this, one can to-day easily recognize on half of the leaves the spots where they have been touched by the compound, but even those leaves which have not retained the least trace thereof are in as good a state as those which still show the spots. It is not necessary that the leaves be entirely covered with the preserving mixture. I venture to say that a single splash even, on a leaf, will be sufficient."

Professor MILLARDET insists upon a timely application, and as a preventive treatment, saying that those who waited until their vines were already rather seriously attacked reaped much less benefit from the operation.

Some fear was entertained that the coppery mixture falling on the fruit, though only in small quantities, might be

injurious to health when eaten. But all experiments made to detect it in the fruit failed to reveal its presence.

In a discussion of this question at a meeting of the Agricultural Society of the Hirault, at Montpellier, the view is expressed that any danger to health need hardly be feared in consequence of the infinitely small quantity of the coppery compound which might adhere to the fruit if proper care has been bestowed while applying it to the vine.

But another remedy, which is absolutely free from any objection on this score, has been applied with remarkable success in Italy, where it was recommended by the Department of Schools and Agriculture. The brothers BELUSSI, near Conegliano, in the province of Treviso, especially deserve great credit for the intelligent and persevering manner in which they have experimented in this direction for a number of years, until at last success has crowned their efforts. The *Messager Agricole* contains communications on the subject by Professor CERLETTI, of the Royal School of Viticulture, Conegliano, Italy, report by Mr. DEHIRAIN, Professor of Agricultural Chemistry at the school of Grignon, France, and report by Professor VELICOGNA, of the Imperial and Royal School of Agriculture, at Geritzia, Austria. These two gentlemen were sent to Italy expressly by their schools to investigate the matter. Their articles are too long to give you a complete translation of them. They all agree, however, in reporting the most astonishing success of the new remedy.

This remedy consists simply of a lime wash, or lime milk, as the French call it, which is prepared in the proportion of about two and one-half kilos. (about 5½ pounds) of fresh lime, slackened in 100 litres (26½ gallons) of water. With this liquid the vines are sprinkled abundantly, and from the middle of May to the middle of August this operation is repeated five or six times.

With this mixture no special care need to be taken, as it contains nothing that is injurious to health, and even if some of the lime should still adhere to the Grapes when they are ripe, this could easily be removed by washing the fruit in water.

In speaking of the results of the treatment Professor VELICOGNA says. "In

every row of vines which had not been limed, but had been sulphured energetically and at several times, on each vine and on each cane not limed, the perenospora (mildew) had made such ravages as I had never seen before in our country. The tenth of the month, September, four-fifths of the leaves were lost. On some vines some canes had no trace of foliage left, the Grapes are few, badly nourished, and quite green; the shoots of this year are short, sickly and puny.

"All the rows of vines, every plant, every cane which, from the middle of May to the middle of August, had been limed five or six times, are completely exempt from the perenospora, not a trace of the disease. The vines have conserved all their leaves, whitened by the lime, but large and fully formed, and of a dark green color when they are washed. As everywhere else, there are not a great many Grapes, but the bunches are fine, well developed, well nourished, and black as ink."

Now any one who knows how some of our finest Grapes, the Delaware, for instance, suffer from the mildew in unfavorable seasons, how in many sections they cannot be grown at all for the season, will appreciate the high value of this discovery of a simple and practical remedy, and its importance if it should prove equally efficacious here.

The Delaware is not, or only very rarely, subject to rot, while it is very susceptible to mildew, but, doubtless, if we could conquer the latter, it would prove one of the most valuable and profitable Grapes to grow. But I have strong hope that this lime treatment may also prove of great service as a preventive against the grape rot, and if such should really be the case, it would be the greatest boon for our American Grape culture.

I would strongly urge upon all of you who are interested in the Grape, and who may have suffered in your vines from the ravages of mildew and rot, to give the new remedies a fair trial, remembering, however, that the efficiency of any remedy depends entirely upon its timely and thorough application.

We hope in due time to learn that thorough trial has been made of the methods here prescribed, and, above all, that they shall prove as valuable as it is now supposed they will.

### ECHEVERIAS.

The Echeverias were brought prominently into cultivation a few years since for the valuable purpose they served in carpet bedding, and it is for this use they are now mostly in demand. They are fleshy, succulent plants, closely resembling the *Sempervivums*, and their general treatment in cultivation is the same.



ECHEVERIA SECUNDA.

Some of the species, however, have been considered sufficiently ornamental to be worthy of a place in the greenhouse among winter-blooming plants. Conspicuous among them are *E. secunda* and some of its varieties, especially *glaucia*. The blooming habit may be seen by the present illustration. The cut flower stems are very graceful with other flowers in vases, and are quite lasting. The flowers are of a neat, regular form, wax-like in appearance, with shades of orange and orange-red. The plants are easily grown in good loam in ordinary greenhouse temperature. They are propagated by the small offsets at the base of the rosettes which, when removed, root easily.

Plants intended for winter blooming should be healthy specimens in early spring, potted in good loam; keep them growing through the summer in a light, airy place, and remove any flower-stems that may appear during summer—with the arrival of autumn this care may cease, though by removing them still later flowering may be further retarded.

In fine bedding work the Echeverias can be employed very effectively.

**A NEW METHOD WITH DAHLIAS.**

A new method in Dahlia cultivation has been successfully practiced in France. It consists in pegging down the stems of the plants as they grow; by so doing the foliage presents a horizontal surface—a carpet of green—through which rise the flower stems bearing the blooms.

In planting a bed for Dahlias to be trained in this manner, set the plants with a slight inclination, in order to favor laying down the stems afterwards. The stems are to be fastened down as they grow, and so arranged as in time to cover all the soil. Wooden pegs are used for fastening, the same as in pegging down Verbenas, Petunias and other plants.

The only care necessary is to direct the flower-stems to an upright position.

Plants of strong-growing varieties will cover a space of a square yard or more. All the stems and branches should be preserved and allowed to grow their full length.

The pegs which are used to keep the stems in place at the commencement can afterwards be pulled out and used again, thus economizing them.

According to the writer in the *Revue Horticole*, from which these notes are taken, this mode of culture will adapt itself to a great number of ornamental combinations. Borders can be formed of a single-colored flower, or, on the contrary, the colors can be varied, and every other plant can be introduced according to some prepared design.

In planting large grounds these ideas are well worthy of being put into practice, and the skillful gardener will readily perceive the advantages offered.

**STRAWBERRIES IN WISCONSIN.**

At the summer meeting of the Northwestern Horticultural Society, held in La Crosse, Wis., June 9th, W. H. OSBORNE, whose name had been mentioned by the President as one having some experience in amateur gardening, gave some account of his failures and successes. Last year he set out a bed of one hundred and twenty-five plants, alternating Sharpless with Wilson. When the plants began putting out runners, he wound them around the parent plant, so that they would set in the hill; when the hill became, by this means, a stocky mass of foliage, the balance of the runners

were pinched off. He had predicted this bed would average a quart to the hill, and while the Wilson had proved almost a failure, the Sharpless would in some cases yield more than a quart to the hill, of quite large berries. In another bed he had the plants in rows, raised about three inches above the level of the ground, and from one to two feet broad. This he regards as the best plan of culture, all things being considered. One row in this bed was the Seth Boyden No. 30, of pot-layered plants set out in July last, which produced berries of unusual size and mild, exquisite flavor. Another row was the James Vick, a berry despised by most gardeners in the West, but which he had found of good flavor, equal size, good color and so firm that they could be shipped across the continent. The others in the row were Crescents, which were always reliable. His experience was that the soil could not be made too rich, after which the necessary conditions were plenty of water and a heavy mulch between rows.

The above account, altered in a few particulars as it appeared in one of our local papers, I send, thinking it may be of some interest to the readers of the MAGAZINE.

R. C.

**CARE OF AN APPLE ORCHARD.**

A writer in the *Cultivator and Country Gentleman* gives an account of a half-acre Apple orchard that, one season, produced \$750 worth of fruit. The orchard is in Orleans County, in this State, and at the time was about twenty years old. The fruit was sold at five dollars a barrel, and some fifteen or twenty barrels were reserved for the use of the family. About two years before this large crop was borne the owner commenced to treat the orchard as follows:

"He covered the ground, except a circle about three feet in diameter around each tree, heavily with coarse manure. This was done in the fall, and soon a deep snow fell on it and covered it, causing it to leach into the soil. When it was pretty well rotted, he turned his hogs into the orchard, and kept them there thenceforward continuously. When they did not root as much as he wished, he would thrust down his crowbar into a place which they had neglected, make a hole, and put in some Corn or Oats,

They would find the grain, and root the ground for some feet around it to his entire satisfaction. They suffered nothing whatever to grow under the Apple trees. Naturally, this kept the ground extremely rough; but at picking time he would exclude the hogs, and harrow the ground into such condition that a wagon could be drawn over it comfortably."

The lack of manure and cultivation, and a general lack of proper care for orchards are the causes, in a great part, of their sterility. Neglected orchards produce small quantities of small, poorly-flavored and poorly-ripened fruit. The orchard should be supplied with all the manure the trees can appropriate, and the trees will then be vigorous and will show it by a good growth of wood and handsome fruit. When the trees do not make a free growth of wood it is certain that they are in ill condition and need the assistance of fertilizers and cultivation—probably, also, judicious pruning, cleaning the bark and the destruction of worms and insects.

#### NEW VARIETIES.

"What shall we do with so many new varieties?" asks T. T. LYON, in the *Michigan Horticulturist*. "In coming to the consideration of this question," he remarks, "the first thought is—Can we afford to do without them?"

Without giving the whole of the article we make the following extracts that appear particularly pertinent to the subject, and which contain thoughts and opinions such as have been previously published in our pages, and are believed to present the true light in which to view this question of new varieties. In Mr. L.'s treatment of the subject he regards it apparently with reference to new fruits, but his remarks are as applicable to new varieties of plants of all kinds as to fruits.

"If we except a comparatively few old favorites, the great bulk of the plants, shrubs and trees, which to-day adorn our ornamented grounds, grace the windows of our homes, and constitute the attractive winter greeneries, of even the dwellings of the yeomanry of our country, are the originations—the "new varieties"—which have arisen within our recollection.

"In fruits, also, Duchesse, Duncan and Early Canada, which so satisfactorily precede and anticipate our old time Straw-

berry season; the Cumberland, Bidwell, Sharpless, Miner, Champion, Crescent, Wilson, Manchester, Vick, Boone, Garfield, and a host of others, which so delightfully beautify, amplify and lengthen it; all the Raspberries and Blackberries, whether yellow, red or black; our wonderful array of native and hybrid Grapes; as well as nearly all our most valuable Pears, Plums and Peaches; and a very large percentage of our most desirable and valuable Apples, were, quite within our recollection, unknown—unoriginated. In consideration of all this may we not confidently ask, can we afford to have all these blotted from our lists, and the hand upon the dial of progress pointed to the zero of our infancy? May we not rather assume that, judging from the past, we have by no means reached the farther verge of improvement, but that there may, doubtless, be still broader possibilities yet to be discovered.

"We cannot, in view of all this, assume that the query under consideration, was propounded upon the assumption that such originations are undesirable; but, rather, that they require to be held to a more rigid and authoritative adjudication as to their real merits, before they shall claim the acceptance of the general public." \* \* \* \* \*

"But, to the question, what to do with them. Our first assumption is, that the mass of those whose purpose is to supply the needs of the family and home, should let them severely alone; at least, till by their performances, in the hands of curious and intelligent experts, they shall have demonstrated their capability to meet the needful requirements.

"Nurserymen and propagators, and curious prying amateurs will, of course, be certain to procure them, without awaiting the proof of their real value: the former, from the necessity to keep abreast with the demands of their customers; the latter, simply for the pleasure to be had, and the knowledge to be acquired in watching and testing them.

"To our apprehension, it will also be profitable to the market grower, to narrowly watch such introductions, and, where there shall be good reason for supposing any of them likely to prove adapted to his purposes, to give them an early trial, on a scale broad enough to determine their desirability for his purposes, and

their adaptation to profitable cultivation in his soil and climate. Such practice will give him an early and trustworthy knowledge of the coming sorts adapted to his wants; and enable him to make an early and judicious use of any that may prove desirable." \* \* \* \* \*

"The grower who merely plants in rows, runs the cultivator between them, and picks indiscriminately into 'snide' boxes, should, by all means, as he usually does, leave novelties to take care of themselves, and 'stick to the Wilson.'"

#### IMMORTELLES.

The area under cultivation of the little yellow Immortelle, *Helichrysum Orientale*, in the district of Provence, France, comprises about three thousand acres. The plants are set so that at the time of blooming the flowers almost touch each other. The enormous quantity of flowers thus raised are used to make bouquets and funeral wreaths, crowns and other emblems.

#### OFFSHOOTS.

Quite a number of complaints have been received in regard to the destructive visitations of louse insects on the foliage of trees—Plum and Cherry especially have been mentioned. A most useful implement among trees is a hand force pump or spraying pump, by means of which liquids can be thrown upon the foliage of trees. Soft soap and water, or whale oil soap, which is better, and a small amount of tobacco water added, is a compound which thrown over the leaves of trees in a fine spray will destroy such insects as are here noticed. This implement, or its equivalent, should be found in every fruit garden, orchard and vineyard, and timely application should be made of the appropriate substances for the destruction of the various insects injurious to fruits.

The "Erie" Blackberry is the new variety of this fruit that is next to be put on

the market, as we understand it is to be publicly offered in the fall. It is claimed to be frost, or freezing, proof, and to produce fruit of the size of the Lawton or Kittatinny. It is reported to have stood a severe frost, bearing a temperature of twenty-five degrees below zero without injury; but then, we shall know much better about it after a few years, for it takes a considerable space of time to prove the value of any new fruit. The appearance of this fruit is described as handsome, and the quality excellent.

The Hybrid Perpetual Roses commenced to bloom here on warm sandy soils in May. Climbing Jules Margottin came out May 26th, and was quickly followed by Louis Van Houtte, Eliza Boelle, General Jacqueminot, Victor Verdier, Prince Camille de Rohan and John Hopper. All these were in bloom by the 31st of May. The 5th of June the blooming of Hybrid Perpetuals was general. *Rosa rugosa* was in bloom the last of May. On heavy soils blooming was about a week later.

The first variety of Lily to bloom, this year, was, as usual, *L. tenuifolium*. This beautiful little flower is hardy and always reliable with us. It commenced to bloom June 4th. *Hemerocallis flava* commenced to bloom at the same date. *Lilium croceum* was the next variety to follow *L. tenuifolium*, and showed its first bloom on the 12th of June.

Grape vines commenced to bloom here on the 10th of June. At that date Concord, Pocklington, Norfolk, Amber Queen and August Giant were noticed in bloom. This is a week earlier than last year and the year before, thirteen days earlier than 1883 and seventeen days earlier than 1882.

Cut up and burn all Raspberry or Blackberry bushes infested with the orange rust.



# OUR YOUNG PEOPLE.

## MEUM ET TUUM.

IN TWO CHAPTERS.—II.

The next day but one after the creditors' meeting, Mrs. Merwin chanced to be in her daughter's room, as she sat combing her hair before her dresser, and was almost startled as Agnes suddenly turned about, with her face in her hands, and passionately cried out:

"O, I do wish I were not so fearfully homely! I can hardly bear to remain before a mirror long enough to finish my toilet. I haven't one redeeming feature—not even a good complexion. It was the consciousness of this, mamma, that nearly crushed me when I found that, added to the other losses, we were to give up our home. I knew it was right to do so; but I felt that if all else were taken from me, and I but had beauty left as a passport to favor, I could bear it better. A positively homely girl needs all the influence that wealth and a handsome home can supply. I feel now that I have nothing left. It's strange how a woman with your face can have such a hideous-looking daughter. I don't see how you can love me."

"Why, Agnes Merwin, what *has* come over you to-day?"

"Nothing new, I assure you. I only feel it more bitterly now than ever before—that is all the difference. Ever since I was a little child I have had spells of worrying about my ugly face. I remember that once, at school, Oscar Vane—you know how handsome he is—came to me with a conundrum, and asked why my nose was a vegetable. Of course, I could not guess, and he answered: 'Because it is a turn-up.' I was dreadfully hurt and mortified, and for a week after tried to sleep with a narrow bandage across my nose, tied at the back of my head, hoping thus to check its upward tendency; but, with the first movement in sleep it would slip off, and I'd waken with a start and replace it."

"Why, Agnes, child, how perfectly ridiculous—how silly!"

"I know it, but you seemed to think

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my present mood something new, so I thought I'd enlighten you."

"Well, I'm glad your worries of that kind were not sufficiently weighty and continuous to affect your daily life and spirits. This face you have on now is not your face; neither was the one you saw in the glass. I heard you give a long-drawn sigh, and looking up, saw that doleful-looking creature myself that confronted you. She was no daughter of mine, I assure you. My daughter is cheery and bright, having too many real interests in life to allow time for foolish regrets. Her earnestness to train her hands to skillful use, to discipline her tongue to gracious and graceful speech, and to store her brain with useful knowledge, while always consulting the interests and welfare of others before her own, make her seem delightfully unconscious of self. Indeed, such motives, inspiring her daily life, kindle a brightness of the eye—a light of intelligence in the face not to be mistaken—lend a refinement of expression, a softening of unpleasing outlines, added to a mellowing charm growing out of unselfishness, all forming a sort of magnetism that attracts and holds her friends, and they forget her plain features. Such, to me, is my daughter, and I think her very lovely."

"O, mamma, do you mean it?" and the true face was back again, so lit up with smiles and animation as to leave little trace of the girl she had just seen in the mirror. As she rose from her seat her mother turned her suddenly by the shoulders, and there was the reflection of herself again, but with quite another face this time.

"I cannot afford to look discontented and mopish," she laughed.

"You cannot afford to *be* discontented and mopish," her mother rejoined. "Rather be thankful that you are not disfigured nor deformed beyond all remedy, like Sadie Trevors."

At this moment hurried footsteps were

heard bounding up the stairway, and then Lucy came rushing in with mischievous-looking eyes and radiant face, telling Agnes that a friend of hers had called to see her, and hurried her down while she wondered at Lucy's unusual excitement.

Yes, a friend had called, and eight or ten other friends with her, and one and all met her with such demonstrations of pleasure and warmth of feeling as she had never before experienced. Each one had so much to say that no one could wait for another, but all talked at once in the most animated medley, trying to express to Agnes what a wonderfully noble and unselfish act her family had done, and how no one ever had such lovely things said of them before, and how several leading business men—some of their own papas included—had determined to form a stock company, and have her father's business go right on as usual, with him to superintend it on a large salary, or to have a percentage of the profits—any way at all so that they could secure so honorable a man to conduct the business representing their capital! And thus they went on.

Agnes was overwhelmed, and sinking into a seat, the tears which she kept laughing away just would keep coming, and though she couldn't talk she put an arm around one and another as they hovered near and petted her, realizing more than ever how dear and noble she was; while she was thinking to herself, "I had no beauty to attract them, and now I know it was not my wealth they cared for, but myself." Then she managed to say :

"I want mamma and Lucy to see you."

"O, yes, and we want to see them," was the response; and three or four girls rushed off to bring them in. Upon entering the room, one of the girls said to Mrs. Merwin :

"We have all come to try to tell Agnes how much we love her, and we don't know how to get at it."

Mrs. Merwin glanced at Agnes, as she thought of the recent scene up stairs, and the tears sprang to her own eyes despite herself, while she tried to control her voice to say :

"I judge from Agnes' appearance that she is fully convinced of your genuine regard."

Then exclaimed Agnes, "O, mamma, one can afford to lose——," but emotion checked further speech. Mrs. Merwin read her thoughts :

"Agnes would like to say that one can afford to lose a great deal in one way, if the loss discover to us so many true friends."

But now we must leave them. In the evening Victor reported having had a similar experience with his friends on the street, adding, as he turned to Agnes, "But boys don't gush like you girls; yet I couldn't misunderstand their feelings."

After the next day's church-service Mrs. Merwin asked her children for some report of it. Their responses indicated that Agnes and George had been much impressed upon two points.

"Sadie Trevors," said Agnes, "sat in front of me with her fearful hunchback, and in the psalter readings I saw we were coming to something that I thought would cruelly hurt her, and dreaded it for her; it was this :

"I am become as it were a monster unto many, but my sure trust is in Thee."

"But when it was read that girl turned around and gave me the most angelic smile! and then I knew that her 'trust' had made her resigned to be what she is." A silence followed this, broken by George, who said :

"I thought the most about that wealthy man in the sermon, who told his friends, when he was dying, that he had nothing left to him then, except what he had given in charity; nothing left, mamma, only what he had given away," repeated George, musingly.

Now we will follow Victor, who has gone for a month to gather Apples and husk Corn for the fair-spoken Mr. Grabit, who is just saying: "Always put a few choice Apples from this pile in the bottom of the barrel, and then fill up with the second-rate Apples from the other pile. Pat and I will do the heading up."

When he had left, Pat Malooney, who was embowered in an adjacent tree-top, passing down Apples to Jim Carlton, called out: "Whiniver, me lod, ye're well oop to the ways o' thot mon ye're riddy for the sarvice o' the devil himself. It's only last wake he diskivered in the city that the dalers now hov a trick of openin' the borrels bottom-eend oop whin they

want to buy fruit, an' he sayed to me, 'Now, Pot, we'll hov to poot a few ch'ice Opples in *booth* eends o' the borrels afther this.' " This was Victor's first lesson.

Later on, he took his second lesson in the twenty-acre cornfield, which Mr. Grabit had rented of a widow woman to let his own corn land rest in Clover awhile. After half-a-dozen loads of Corn had left the ground, Pat delivered himself in this wise:

"Veector, me b'y, ye've a foine chance to l'arn a trick in deliverin' Corn on the *shares*. Whin a load goes to the widdy the eend boord o' the waggon must be set into these grooves, an' thin it holds twinty booshels; but whin a load goes to old Grabit's crib the boord is set clane out to the eend o' the woggon, an' thin it holds twinty-five booshels. Where the ground hov been washed by high water the Corn is light, an' plinty o' noobins; an' now I've me orders to tak the widdy's loads from that part while it holds oot. I'm so mod I've a moind to git the orders mixed oop in me hid, an'

deliver it all joost *contrary* to wot he sayed. Onnyway, I know it's in pargatory he'll find 'imself batimes, an' it's dry corn-husks he'll hov to ate day an' noight, widout a drap o' drink nor a bit o' rest for his jaws—bod luck to 'im!"

Jim Carlton was shocked at this revelation, and Victor, with his training, was perfectly horrified; and so the two boys decided to wash their hands of the business and go to their homes. Victor was sore at the thought of losing the wages for what he had already done, but more sore at the cause of it; and reported to his parents that he gave Mr. Grabit a parting shot. "I told him," said he, "that I didn't like his way of doing business, that if I were going to cheat any body I wouldn't cheat a *woman*, and a widow woman at that! He called me an impertinent puppy, and advised me to mind my own business; and I told him that was just what I was doing, for it was my business to be certain that I was doing honest work. There's more meaning than I thought in 'MEUM ET TUUM.' "

MARIA BARRETT BUTLER.

## A CHASE FOR BUTTERFLIES.

As the summer advances the butterflies and moths once more flit among the flowers, as gay as the flowers themselves. Strange as it may seem these same beautiful insects are very destructive to vegetation, or rather their caterpillars are, and both butterflies and moths are in caterpillar form before they gain their wings.

As flowers are gathered by botanists that knowledge may be gained from them, so entomology, or the study of insects, necessitates the capture of insects, and if care is used, and the specimens well preserved, a collection may be gathered the beauty of which will prove a source of great pleasure. On the other hand, if care is not exercised in catching the insects, they may be so hopelessly injured as to be useless.

A beautiful *Cecropia* moth was caught one summer day by some little folks, and carried home as a prize, for it was large and beautifully colored. But a disappointment was in store for them, for one wing was broken and the soft feathery down, which is so beautiful, brushed from the wings, thus rendering the speci-

men useless which would otherwise have been a rare one. Therefore a few hints as to the necessary articles required for catching and preserving the insects may not come amiss to those who may wish to adopt this study. A sweeping net of cotton cloth fastened to a brass ring a foot or more in diameter, with a handle four or five feet in length, for brushing the insects from the grass or shrubs. A lepidoptera net of Swiss muslin or silk gauze, with a cloth binding which is sewed to a ring twelve inches in diameter, with a light handle five or six feet in length. This is for catching the insects while on the wing. A water net, which is made as the sweeping net, but of grass cloth, or coarse material, for taking insects from water.

A collection box, either small enough for the pocket or measuring a foot or more in length and width, to be suspended at the side by means of a strap over the shoulder. Any light box will answer which is not less than two inches deep. On the bottom is glued a layer of sheet cork, for the pins on which the insects are impaled can be easily thrust



Setting Frame and Nets.

into this soft substance. A bottle of ether, or refined benzine, with which to kill the insects. A few drops applied to the body will destroy life almost instantly. A setting board of two thin strips of pine wood a foot or more in length and two inches wide, upon two uprights which serve as supports, and the space of half an inch between the strips, in which the bodies of the insects are placed. A pin is thrust through the body or thorax and penetrates the layer of soft cork which is beneath the strips.

The wings are then spread out in a natural position on the upper side of the frame or setting board, and held by narrow strips of card-board laid over the wings and kept firmly in place by pins run through the card-board into the frame.

The length of time required for drying

the specimens will depend upon the size, from two to six weeks, when they will retain the positions in which they are placed. They may then be removed to the cabinet, the drawers of which should be furnished with a close glass cover to prevent the specimens becoming marred by the dust. The drawers of the cabinet, or if boxes are used, should first be neatly lined with sheet cork, and covered with white paper pasted over it. The specimens are to be then arranged in rows, held in place by pins, and labelled as carefully as possible, and kept from the light, as the colors may fade.

As the herbarium is to the botanist, so the cabinet is to the entomologist, whether professional or amateur—a store-house of knowledge and beauty.

M. E. WHITTEMORE.

### HOW I BEGAN TO LIKE FLOWERS.

When I was a boy of about thirteen, an aunt gave me seeds of Sunflowers and Marigolds and roots of Daisies, Violets, Sweet Williams and Polyanthus, and talked of them in a way which made me quite intensely desirous of seeing what they would produce for me.

When I came home I asked for a little bed in the garden. A space was given me that was waste, because it was between a large Elm in the hedge and a disused saw-pit. Heavy sawing was done in those days slowly and painfully by two men, one down in the pit, the other standing on the log above. I cleared the rough growth off the ground, dug it as well as I could, planted my seeds and roots much too thickly, and added a *Lychnis* plant which one of the house-maids gave me under the striking name of "scarlet lightning." Soon growth appeared, and I delighted in seeing it; the pleasure it afforded me made me assiduous at pulling out weeds. Blossoms came, and then more and more rich color, and some of the family praised my flowers.

I saw that I should have thinned my plants, and I saw how they dried on the bank between a deep worn lane on one side of the hedge and the pit on the other, but I did not yet learn how much the Elm tree roots did to rob them and dry up the soil.

However, I became a lover of flowers,

and I have them about me still, now that I am seventy years of age. A room looks to me bald and incomplete unless it has at least one good plant or vine showing its native greenery among the decorations.

Flowers seem to look at me out of another world, as if smiles of promise of beauty and enjoyment lying behind the veil. Are they not so intended, expanding as they do in every nook and corner, no matter how secluded and retired, of the habitable earth?

And men are happy just in proportion as they can draw happiness from these natural sources. When they give themselves to the pursuit of artificialities—to the calls of lucre, to the spirit of ambition, and the insane desire to out-strip or master their fellows in the hot pursuit of what must all be left entirely behind when the call comes to enter another existence—they are often admired or envied, but are really to be pitied. W.

### BEAUTY IN FLOWERS.

A taste for flowers and plants is a bond of sympathy that encircles the best of our race in every land and condition. Flowers are not prized because they are fashionable—they appeal to the sense of the beautiful, and satisfy it as do few other objects. Their language is universal—all nations understand it.

## EDITOR'S MISCELLANY.

### NAMES OF FRUITS.

A controversy of some months' standing is yet in progress in some of the agricultural and horticultural journals in regard to the names of fruits, and the action of the American Pomological Society in abbreviating some of the names contained in its lists. The society desires that the name of every fruit shall consist of one word, and it has abbreviated, when possible, all the long names of fruits in its list, whether of American or foreign origin. Of course, this is a great liberty to take with names that have long been in use and are found in a great variety of publications. Without the society's key it would be quite impossible for a novice to understand what some varieties are meant by the new or abbreviated names.

Of course, the society has a right to take this course if it so decides, but in doing so it violates a custom that has been observed by horticulturists in all countries so long that it has become a rule of unquestioned acceptance, this is, that the originator or introducer of a fruit has the right to give it its name. This usage has, also, always prevailed among botanists, and, in fact, it is the first rule laid down by the said society itself to govern this very subject. How it can reconcile this rule with the one by which it "reserves the right, in case of long inappropriate or otherwise objectionable names, to shorten, modify, or wholly change the same," it is difficult to understand.

When this subject was first brought up by the society, the reason given for its action was the long names sometimes given to fruits, and especially such uncouth ones as Hog Pen, Sheep's Nose, Big Bob, &c.; this last name has been put forward as particularly objectionable, but why, for the most of us who have lived a pretty long lifetime in good fellowship with so good a fruit as Crown Bob Gooseberry, and never found fault, it is difficult to understand.

The subject of proper nomenclature of fruit is in some sense important, but we think a rigid application of its own rules would deprive the society's catalogue of some good varieties with even a single name, and such good names, too, as Wilder, Downing, Barry, &c., for the reason that these names have been given, not as indicating any of "the characteristics of the variety, the name of the originator, or the place of its origin," as the rule of the society designates should be the purport when the name consists of a single word.

Admitting that such names as those mentioned have been bestowed with the honest and commendable desire to commemorate some of our most illustrious horticulturists, yet it is evident that it has also been done with a sharp eye to the main chance—making capital of a good reputation to cause a boom for the variety when put into the market. On our own part there is no objection to such names, only we should hope that always a worthy name be borne by a superior fruit.

On the whole, the society's action will probably be only partially effective in the change of well established names, and to the extent of its effectiveness but little good will result, in many cases it will no doubt cause some confusion, thereby frequently requiring some explanations. In the case of new names it is doubtful if the society should go farther than to suggest and advise, leaving a very large liberty to originators and introducers of new fruits. The bestowal of a name without interference by such parties seems almost one of the "inalienable rights."

It is quite proper that the society should indicate the most desirable qualities in a name, and endeavor through its membership to disseminate its ideas on the subject, but here its action will practically be apt to end. The changing by shortening, anglicising or translating the foreign names of foreign fruits can not be advisable.

### THE STRAWBERRY MARKET.

The *Farmers' Review*, of Chicago, gives the following statistics of the Strawberry season at Centralla, Illinois, which closed June 5th:

"Number of carloads shipped, one hundred and fifty-six—two less than last year. Average price received per crate, \$1.50. Total receipts from crop, \$107,640. Out of this amount the following charges were paid, viz.: To pickers, \$34,444; crates and boxes, \$12,916; commissions, \$10,764; freights, \$14,325; net receipts, \$35,174, equal to about forty-nine cents per twenty-four quart crate, or two cents a box. The crop was not nearly exhausted when the shipments closed, but the free receipts of Michigan berries in Chicago, rendered further shipments unprofitable."

The last sentence is especially suggestive, and one cannot help making the mental inquiry of what the real profit was to the grower when he received the net amount of two cents a box for what he sold, but the crop was not nearly disposed of and was left valueless on his hands. This appears a great waste for a crop that has occupied the land for two years.

Again, the advantage here seems to be with the northern grower, for if he receives not less per box for his fruit he has no other competitor at the close of the season, and can probably dispose of his whole crop. But possibly his net returns per box may be even less.

We do not know exactly what is the average produce per acre of Strawberries at the west, probably two thousand quarts is a good estimate; at two cents a quart this would be \$40 an acre for two years' use of the ground and cultivation, or, supposing two full crops are taken in three years, it would be \$80 in that time, or an average of \$26.67 an acre a year. Certainly a small amount to pay for the labor of setting the plants and the cultivation, without taking into account the interest on investment. But if the crop cannot "nearly" be disposed of, even at that price, what is the fate of the Strawberry grower!

### AMERICAN FORESTRY.

We acknowledge the reception of the Proceedings of the American Forestry Congress, held in Boston, in September last. It appears from the statement of the President, based upon information in the forestry bulletins issued by Prof. C. S. Sargent, from the Census Department, that the supply of White Pine lumber will be exhausted in the States of Michigan, Wisconsin and Minnesota "in the brief period of about twelve years," at the present rate of cutting.

The late James Little, of Montreal, who had given great attention to the subject, "said of the supply of White Pine in Canada, that he had consulted with the best authorities, and was persuaded that, at the rate of cutting then going on, the whole supply of the Provinces of Quebec, Ontario, New Brunswick and Nova Scotia would be used up in about ten years."

It is estimated that for the supply of railroad ties alone for the existing roads it will require seventeen million of acres of woodland to be kept constantly growing. This is more than four per cent. of the total area of woodland in the United States exclusive of the Territories.